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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/744,393

03/05/2001

Samuel W. D. Steel

36-1553

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23117 7590 03/12/2007

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EXAMINER

LE, MIRANDA

ART UNIT

PAPER NUMBER

2167

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/744,393

Applicant(s)

STEEL ET AL.

Examiner

Miranda Le

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 11-19 are pending in this application. This communication is responsive to Amendment After Final filed 02/21/2007.

#### *Response to Arguments*

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive since Karten does not meet the claims priority date July 30, 1998, therefore, the finality of that action is withdrawn. The new Final office action is set forth accordingly below.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11, 12, 15, 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Robertson et al. (US Patent No. 6,216,123).

Robertson anticipated independent claim 11 by the following:

As per claim 11, Robertson teaches apparatus for accessing a semi-structured database in accordance with an input request for information, wherein the semi-structured database comprises a plurality of items (*i.e. documents, col. 2, lines 40-63*), each item comprising one or more fields having a plurality of characters therein (*i.e. groups of words, col. 2, lines 40-63*), at least one the fields being a free text field (*i.e. full text, col. 2, lines 40-63*), the apparatus comprising:

means for accessing a data store comprising a plurality of index entries (*i.e. full text index, col. 2, lines 40-63*) each representing a concordance between an entry in a field (*i.e. word entries, col. 2, lines 40-63*) of an item and an item (*i.e. each entry contains a reference of document, col. 2, lines 40-63*);

input means for receiving a request for information, the request comprising a natural language phrase (*i.e. words in the search request, col. 2, line 64 to col. 3, line 14*);

a parser for parsing the request to determine component of the request (*i.e. the word in the search request are converted to respective word numbers, col. 2, line 64 to col. 3, line 14*)

a slot filler arranged (*i.e. hash algorithm, col. 2, line 64 to col. 3, line 14*) to identify one or more object components representing an object (*i.e. group, col. 2, line 64 to col. 3, line 14*) of the request from the parsed request, wherein each slot corresponds to a group of index entries and wherein the slot filler is arranged to allocate at least one component to a respective slot of a slot-and-filler request with a plurality of slots (*i.e. cross-reference table, col. 3, lines 15-24; document level information, col. 2, line 64 to col. 3, line 14*) (*col. 3, lines 38-59*);

a query constructor for accessing the data store (*i.e. retrieve relevant documents from a large pool of documents, col. 6, lines 44-59*), wherein the query constructor is arranged to compare the allocated component with index entries within a group corresponding to the slot of the allocated component so as to identify an index entry corresponding thereto, and to use the identified index entry to identify an item in the semi-structured database (*i.e. Searches typically occur in two stages. The first stage involves generating a full text index which contains information about the words in the pool of indexed documents, and the location of the documents. The second stage involves processing a search request and accessing the full text index and returning references to the documents that satisfy the request (col. 6, lines 59-65) (col. 3, lines 38-59)*);

**As per claim 12**, Robertson teaches apparatus according to claim 11, further including: an index generator comprising a processor arranged, in respect of each item in the semi-structured database (*i.e. each entry contains a reference of document, col. 2, lines 40-63*), to analyze each field in accordance with a predetermined criterion so as to identify an entry within said field (*i.e. groups of words, col. 2, lines 40-63*), and to generate at least one index entry representing a concordance between an identified entry and the item corresponding to the identified entry, and store the generated index entry in the data store (*i.e. a word cluster has a single index, col. 4, line 59 to col. 5, line 5*);

wherein for each of a plurality of predetermined formats, the processor is arranged to search said free text field (*i.e. full text, col. 2, lines 40-63*) to identify a sequence of characters having a format corresponding to the predetermined format, said

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identified sequence of characters being deemed to constitute an identified entry (*i.e. The group of word numbers has a predetermined group size, col. 2, lines 40-64*).

**As per claim 15**, Robertson teaches apparatus according to claim 11, wherein the items within the semi-structured database are further arranged in groups of items, each group being located in a heading field and being identified by at least one heading entry (*i.e. These index values can then be used to index the boundary table 59, col. 11, line 65 to col. 12, line 37*), wherein the processor is arranged to identify a heading entry by comparing each heading field with each of a plurality of selection criteria (*i.e. boundary, col. 11, line 65 to col. 12, line 57*) defining one or more predetermined characteristics of a respective heading entry, and is arranged to generate index entries representing a concordance between such heading entries and the group of items in the heading field (*i.e. col. 11, line 65 to col. 12, line 57*).

**As per claim 19**, Robertson teaches apparatus according to claim 11, wherein the data store is part of the apparatus (*i.e. retrieve relevant documents from a large pool of documents, col. 6, lines 44-59*).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Patent No. 6,216,123), in view of Kirsch et al. (US Patent No. 5,983,216).

**As per claim 13**, Robertson does not explicitly teach apparatus according to claim 12, wherein for the free text field, the processor is arranged to define any data not identified as an entry as a free text entry.

However, Kirsch teaches the free text field, the processor is arranged to define any data not identified as an entry as a free text entry (*i.e. an input query text, col. 4, lines 45-59*).

It would have been obvious to one of ordinary skill of the art having the teaching of Robertson and Kirsch at the time the invention was made to modify the system of Robertson to include the above limitations as taught by Kirsch.

One of ordinary skill in the art would be motivated to make this combination in order to select single-word terms and multiple-word phrase terms from the query text in view of Kirsch (*col. 4, lines 45-59*), as doing so would give the added benefit of applying each such selected term against a meta-index descriptive of the document collections as taught by Kirsch (*col. 4, lines 45-59*).

As per claim 14, Kirsch teaches apparatus according to claim 13, wherein the free text entry comprises at least one free text word defined by a sequence of alphanumeric characters (*i.e. single-word terms, multiple-word phrase terms, col. 4, lines 45-59*), the processor being arranged to identify at least one selected free text word for a field by comparing the free text entry with at least one selection criterion defining one or more predetermined characteristics of a selected free text word (*i.e. applying each such selected term against a meta-index descriptive of the document collections, col. 4, lines 45-59*)

7. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US Patent No. 6,216,123), in view of Paik et al. (US Patent No. 6,076,088).

As per claim 16, Robertson does not explicitly teach apparatus according to claim 11, wherein the slot filler is arranged to identify verb components forming a verb or verb group in the parsed request and to allocate any such identified verb components to a slot in accordance with a predetermined mapping between verb components and slots.

However, Paik teaches the slot filler is arranged to identify verb components forming a verb or verb group in the parsed request and to allocate any such identified verb components to a slot in accordance with a predetermined mapping between verb components and slots (*col. 12, line 31 to col. 13, line 26*).

It would have been obvious to one of ordinary skill of the art having the teaching of Robertson and Paik at the time the invention was made to modify the system of Robertson to include the above limitations as taught by Paik.



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One of ordinary skill in the art would be motivated to make this combination in order to determine its idiomatic meaning in view of Paik (*col. 12, lines 57-64*), as doing so would give the added benefit of extracting information from text about any concept and its relations to any other concepts within that text as taught by Paik (*col. 3, line 58 to col. 4, line 4*).

**As per claim 17**, Paik teaches apparatus according to claim 16, wherein the slot filler is arranged to identify any subject components in accordance with the position of the verb or verb group within the request and to allocate any such identified subject components to a slot in accordance with a predetermined mapping between subject components and slots (*col. 12, line 31 to col. 13, line 26; col. 17, line 60 to col. 18, line 61; col. 21, lines 35-62*).

**As per claim 18**, Paik teaches apparatus according to claim 16, wherein in the absence of identifying verb components, the slot filler is arranged to deem any components to be object components (*col. 12, line 31 to col. 13, line 26; col. 17, line 60 to col. 18, line 61; col. 21, lines 35-62*).

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*Conclusion*

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

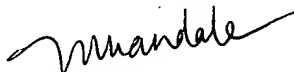
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Miranda Le  
March 08, 2007



JEAN M. CORRIELLUS  
PRIMARY EXAMINER  
Art Unit 2162